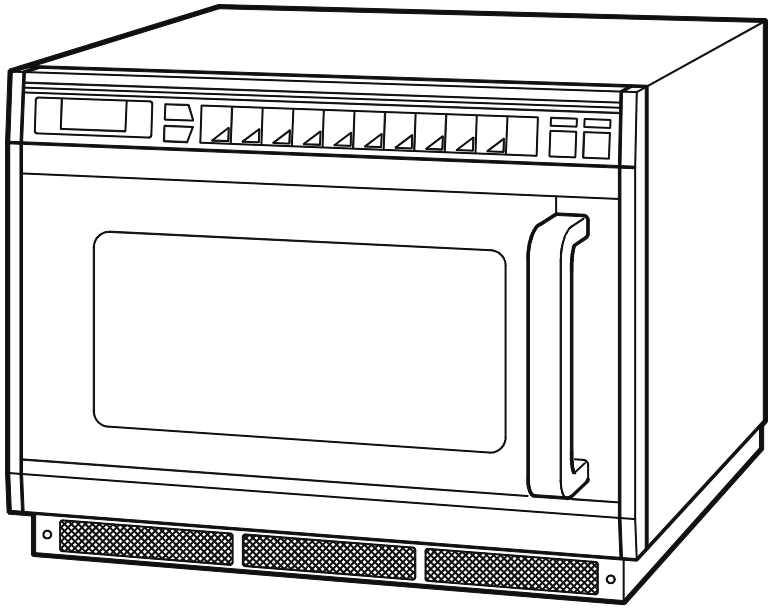
SERVICE MANUAL Microwave Oven

EM-C1800MK(Germany)
EM-C1800MK(U.K)



Model No	Pro.Code No
EM-C1800MKSD	437 477 00
EM-C1800MKUK	437 477 01

Foreword

Read this manual carefully, especially precaution on microwave energy, and follow the procedure strictly, careless servicing and testing may expose yourself to the microwave energy leakage.

PRECAUTIONS

PRECAUTIONS TO BE OBSERVED BEFORE AND DURING SERVICING TO AVOID POSSIBLE EXPOSURE TO EXCESSIVE MICROWAVE ENERGY

(a) Do not operate or allow the oven to be operated with the door open.
(b) Make the following safety checks on all ovens to be serviced before activating the magnetron or other microwave source, and make repairs as necessary:
(1)Interlock operation, (2) proper door closing, (3) seal and sealing surfaces (arcing, wear, and other damage), (4) damage to or loosening of hinges and latches, (5) evidence of dropping or abuse.
(c) Before turning on microwave power for any service test or inspection within the microwave generating compartments, check the magnetron, wave guide or transmission line, and cavity for proper alignment, integrity, and connections.
(d) Any defective or misadjusted components in the interlock, monitor, door seal, and microwave generation and transmission systems shall be repaired replaced, or adjusted by procedures described in this manual before the oven is released to the owner.

REFERENCE NO. SM-640177

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CAUTION
MICROWAVE RADIATION
PERSONNEL SHOULD NOT BE EXPLOSED TO THE MICROWAVE ENERGY WHICH MAY RADIATE FROM THE MAGNETRON OR OTHER MICROWAVE GENERATING DEVICE IF IT IS IMPROPERLY USE OR CONNECTED. ALL INPUT MICROWAVE CONNECTIONS, WAVEGUIDE, FLANGES, AND GASKETS MUST BE SECURE. NEVER OPERATE THE DEVICE WITHOUT A MICROWAVE ENERGY ABSORBING LOAD ATTACHED. NEVER LOOK INTO AN OPEN WAVEGUIDE OR ANTENNA WHILE THE DEVICE IS ENERGIZED.

1. ADJUSTMENT PROCEDURES

TO AVOID POSSIBLE EXPOSURE TO MICROWAVE ENERGY LEAKAGE, THE FOLLOWING ADJUSTMENTS OF THE INTERLOCK SWITCHES SHOULD BE MADE ONLY BY AUTHORIZED SERVICE PERSONNEL.

PRIMARY INTERLOCK SWITCH, INTERLOCK MONITOR SWITCH AND DOOR SENSING SWITCH ADJUSTMENT

(Figure 1)

(1) Loosen 2 screws securing the lever stopper.
(2) Adjust the lever stopper position so that it is pushed up and pull backward until there is about zero gap between the latch lever and the switch body on the door primary interlock switch and the at the same time there is about zero gap between latch lever and the switch body on the door sensing switch when the door latch is securely locked.
(3) Tighten the lever stopper screws securely.
(4) Make sure the interlock monitor switch closes after the primary interlock switch opens the door is opened very slowly, according to “CHECKOUT PROCEDURE FOR SWITCHES” on page 6.
(5) Make sure the interlock monitor switch opens before the primary interlock switch closes when the door is closed very slowly, according to CHECKOUT PROCEDURE FOR SWITCHES” on page 7.
(6) Make sure the microwave energy leakage should be no greater than 5 mW/cm^2 to allow to measurement uncertainty when measured with a detector. *(All service adjustments must be made for minimum microwave energy leakage readings.)*

NOTE: If the interlock monitor circuit operates and at the same time the fuse blows with the door opened, be sure to replace the control circuit board because relay 3 and 4 on the control circuit board, the door sensing switch and the electric circuit related on the door sensing switch, which act as Secondary Interlock switch.

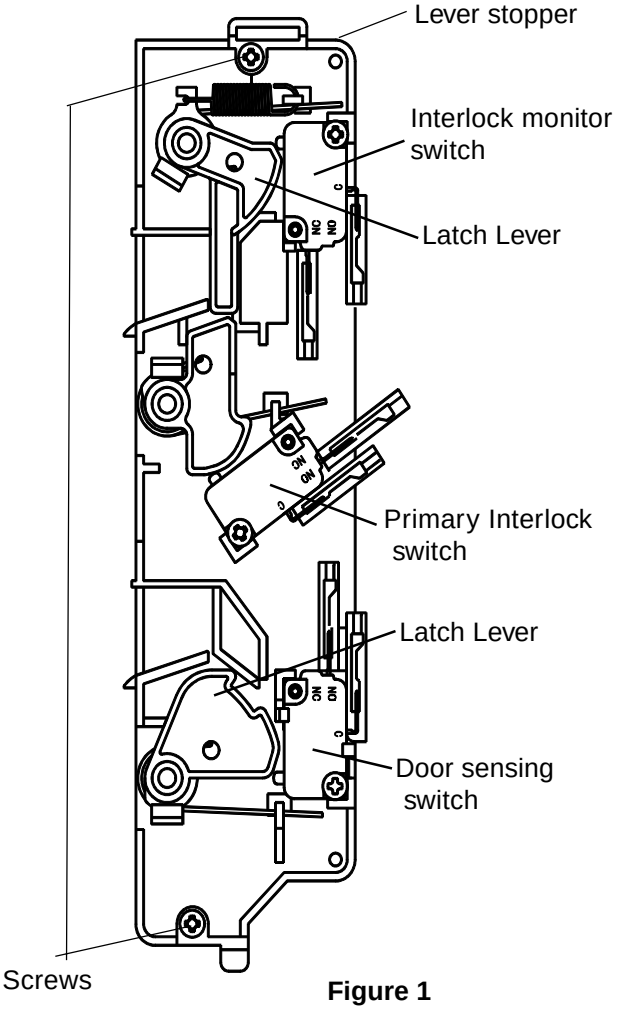


Figure 1

2.SPECIFICATIONS

Microwave output ..... 1,800W to 180W
Frequency 2,450MHz
Power supply 230V, 50Hz
Rated current ..... 13 Amp.
Safety Device .....
Thermal limitter (Magnetron) 150 °C Open
80 °C Close
Thermistor (Magnetron) .. 200 °C Open
108 °C Close
Thermistor(Duct) ..... 120 °C Open
Fuse (Cartridge Type) 250V 10A
Micro switch, Relay
Primary interlock Switch
Interlock monitor Switch
Door sensing Switch and
Relay RL-3 and 4
Max. input time ..... Electronic Digital, up to
Manual 10min.
Memory 30min.
Overall Dimensions ..... 422(W)x540(D)x335(H) mm
Oven cavity size ..... 330(W)x330(D)x230(H) mm
Effective Capacity of Oven Cavity ..... 19.1 liters
Net weight 32Kg

3. POWER OUTPUT MEASUREMENT

(1) Prepare 1000+5g tap water.
(2) Adjust water temperature to 10 •}2 °C .
(3) Pour water into a container made of borosilicate Glass, 190mm outer diameter cylinder, maximum 3mm thickness.
Note :Use the container kept on the room temperature.
(4) place the container on the center of oven cavity.
(5) Set the heating time for 27 seconds and rating full power and then start oven.
(6) Take the container out immediately when heating time is up.
(7) Stir water for making even water temperature in the container.
(8) Measure water temperature.

Water temperature rise shall be 8 to 12 °C.

4. PRECATIONS AND REPAIR SERVICE TIPS

PRELIMINARY

A. SINCE NEALY 4,000 VOLTS EXISTS IN SOME CIRCUITS OF THIS MICROWAVE OVEN, REPAIRS SHOULD BE CARRIED OUT WITH GREAT CARE.

B. TO AVOID POSSIBLE EXPOSURE TO MICROWAVE ENERGY LEAKAGE, THE FOLLOWING PRECATIONS MUST BE TAKEN BEFORE SERVICING.

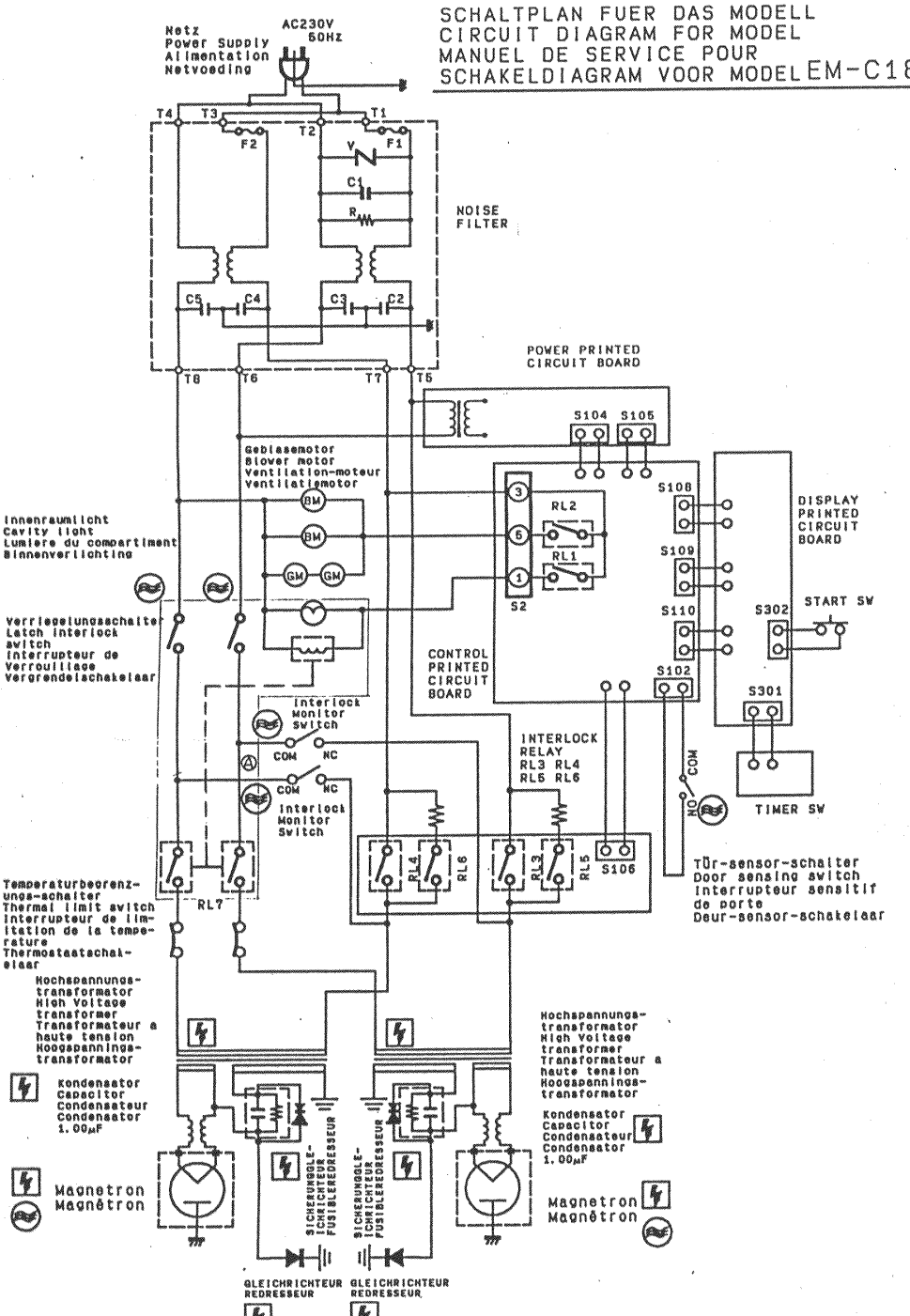
(1) Before the power is applied.
(a) Open and close door several times to make sure the door interlock switch and interlock monitor switch operation properly.
(Listen for the clicking sound from switches.)
make sure the interlock monitor switch is closed after the latch interlock switch is open when the door is opened. (See pages 1 and 8)
(b) Make sure the perforated screen and the choke dielectric of the door are correctly mounted.
(2) After the power is applied.
(a) Open and close the door to see if the interlock mechanism operates properly.
(b) Check microwave energy leakage with a leakage detector and confirm the energy leakage is below 5mW/c ‡u.
(3) Do not operate the unit until it is completely repaired if any of the following conditions exists.
(a) Door is not closed firmly against the cavity front.
(b) The hinge is broken.
(c) The choke dielectric or the door seal is damaged.
(d) The door is bent or warped, or there is any other visible damage to the oven that may cause microwave energy leakage.
Note: Always keep the seal clean.
(e) Make sure that there are no defective parts in the interlock mechanism.
(f) Make sure that there are no defective parts in the microwave generating and transmission assembly.
(especially wave guide)
(4) Following items should be checked after the unit is repaired.
(a) The interlock monitor switch is connected correctly and firmly.
(b) The magnetron gasket on the magnetron is properly positioned.
(c) Waveguide and oven cavity are intact. (No leakage of microwave energy).
(d) The door can be properly closed and the safety switches work properly.
(e) The oven must be stopped when the door is opened or the time is up.

The oven must not be operated with any of the above components removed or bypassed.

HINT FOR LAMP-CHANGE
Before removing the cabinet, pull out the main-plug. If you want to check the new lamp with the open Cabinet, take care of the following safety-cautions: Do not touch live parts. The lamp holder is not connected to the earth protection lead by a metric screws.

5. CIRCUIT DIAGRAM

SCHALTPLAN FUER DAS MODELL
CIRCUIT DIAGRAM FOR MODEL
MANUEL DE SERVICE POUR
SCHAKELDIAGRAM VOOR MODEL EM-C1800MK



ANMERKUNGEN/REMARQUES IMPORTANTES

DAS ZEICHEN / LE SIGNE -TEILE, DIE MIT DIESEN ZEICHEN VERSEHEN SIND, FUEHREN HOCHSPANNUNG UEBER 250V.
LES PIECES MARQUEES DE CE SIGNE SONT SOUS HAUTE TENSION(SUPERIEURES A 250 V)

DAS ZEICHEN / LE SIGNE -TEILE, DIE MIT DIESEM ZEICHEN VERSEHEN SIND, HABEN SPEZIELLE EIGENSCHAFTEN, DIE FUER DIE LECKSTRAHLUNG BEI MIKROWELLEN WICHTIG SIND. SOLLTE EINES DIESER TEILE AUSGEWECHSELT WERDEN, BITTE NUR VOM HERSTELLER ANGEGEBEN ERSATZTEILE VERWENDEN.

LES PIECES MARQUEES DE CE SIGNE ONT DES SPECIFICATIONS IMPORTANTE POUR L'IMPERMEABILITE AUX MICRO-ONDES.
EN CAS DE CHANGEMENT, DE L'UNE DE CES PIECES N'UTILISER QUE DES PIECES, NE DU FABRICANT.

SWITCH MADE ●	LATCH INTERLOCK SWITCH	INTERLOCK MONITOR SWITCH		DOOR SENSING SWITCH	SECONDARY INTERLOCK RELAY 3 RELAY 4
CONDITION	COM NO	COM NC	COM NC	COM NO	COM NO
DOOR OPEN		●	●	●	●
DOOR CLOSE	●				

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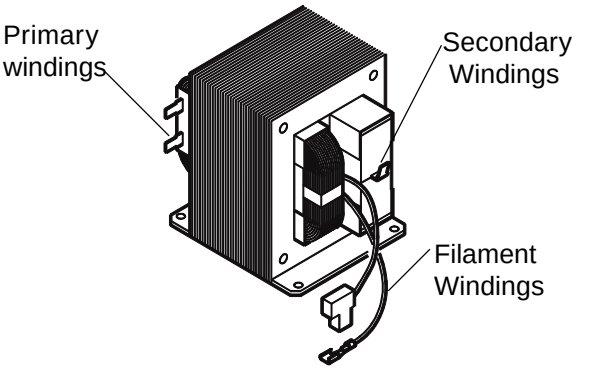
6. TEST PROCEDURES AND TROUBLESHOOTING

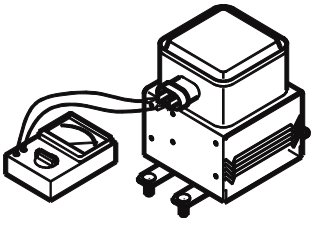
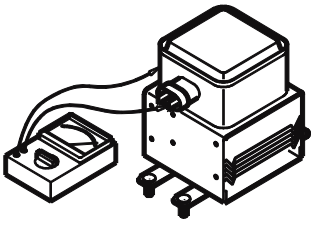
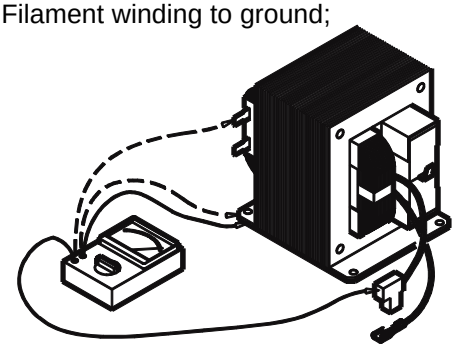
CAUTION

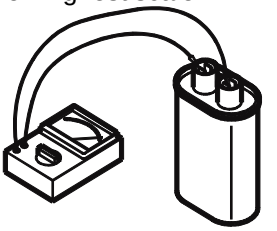
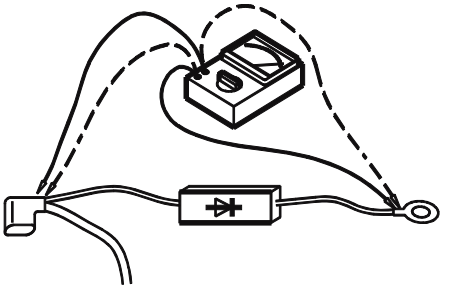
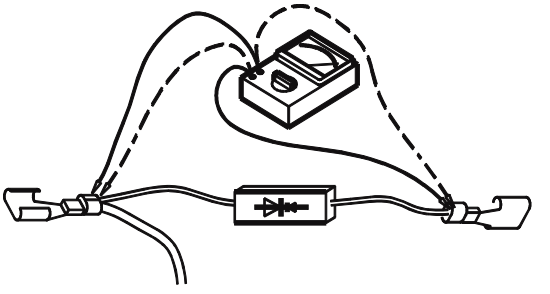
-DISCONNECT THE POWER SUPPLY CORD FROM THE WAL OUTLET WHENEVER REMOVING THE CABINET FROM THE UNIT.

PROCEED WITH TESTS ONLY AFTER DISCHARGING THE HIGH VOLTAGE CAPACITOR AND REMOVING THE LEAD WIRES ON THE PRIMARY WINDING OF THE HIGH VOLTAGE TRANSFOREMER. (SEE FIGURE 3)

A. TEST PROCEDURES



COMPONENT	CHECKOUT PROCEDURE	RESULT
MAGNETRON	1) Check for resistance: Across the filament terminal of the magnetron with an ohm - meter on Rx1 scale.  2) Check for resistance: Between each filament terminal of the magnetron and the chassis ground with an ohm-meter on highest scale. 	Normal reading: Less than 1 ohm. Normal reading: Infinite ohms.
HIGH-VOLTAGE TRANSFORMER	1) Measure the resistance: With an ohm-meter on R x1 scale. a. Primary winding; b. Filament winding; c. Secondary winding; 2) Measure the resistance: with an ohm-meter on highest scale. a. Primary winding to ground; b. Filament winding to ground; 	Normal reading: Approximately 1.0 ohms Less than 1 ohm. Approximately 60 ohms Normal reading: Infinite ohms. Infinite ohms. Note: Remove varnish of measured point.

COMPONENT	CHECKOUT PROCEDURE	RESULT
HIGH-VOLTAGE CAPACITOR Including bleeder resistor	Measure the resistance: Across two terminals with an ohm-meter on highest scale. 	Normal reading: Momentarily indicates several ohms, and gradually to 10 meg-ohms. Abnormal reading: Indicates continuity or 10 meg-ohms from the beginning.
HIGH-VOLTAGE DIODE	Measure the resistance: Across two terminals with an ohm-meter on highest scale. 	Normal reading: Indicate about the middle position in one direct (forward) and infinite ohms in the reverse direction, using meter with a 9-volt battery. NOTE - Some digital meter may show over even in a forward direction because low measuring voltage of meter does not allow the meter to pass through the high voltage diode. Abnormal reading: Indicates continuity or infinite ohms in both directions.
FUSE DIODE	Measure the resistance: Across two terminals with an ohm-meter on highest scale. 	Normal reading: Indicate infinite ohms in both directions. Abnormal reading: Indicates continuity in both directions or continuity in one direction and infinite ohms in reversed direction.

COMPONENT	CHECKOUT PROCEDURE	RESULT
POWER P.C.B	Check each voltage at connector S104 and S105 after removing each connector (female) from power circuit board. Pin No.3 (Ground) and 4,5, 1,2 at S105. Pin No.1 and 2 at S104. CAUTION: Proceed with the test only after removing the wire leads from the primary winding of high voltage transformer for your safety. Test procedures: a) Make sure that the power supply cord is not plugged in. b) Remove the connector S104 and S105 from the power circuit board. c) Plug the power supply cord. d) And then, measure each voltage.	Normal reading: Connection Pin No., Voltage(V) S105 #3 to #4 DC 12 #3 to #5 DC 16 #3 to #1 DC 30 #3 to #2 DC 35 S104 #1 to #2 AC 2.4
CONTROL P.C.B	Measure the voltage: Between test points TP-1, TP-2 ,TP-3 and ground (See figure 14 on page 23) Note - Proceed with the check of the control P.C.B to see if any one of the measured values is different from the specified values.	Test point TP, Voltage(V) TP-1 DC - 5 TP-2 DC - 12 TP-3 DC - 16 TP-4 DC - 35

COMPONENT	CHECKOUT PROCEDURE	RESULT
TOUCH KEY BOARD	Measure the resistance between terminals of connector after removing it from S110. (Figure 10) NOTE - When reconnecting the connector, make sure the connector are properly inserted to the connector S110. **MATRIX CIRCUIT FOR SWITCHBOARD**	Resistance Value: When touched: Less than 5 K ohms; When not touched: More than 1 meg ohms When checking 900 W key , connect ohm-meter to the terminal 12 to 1.

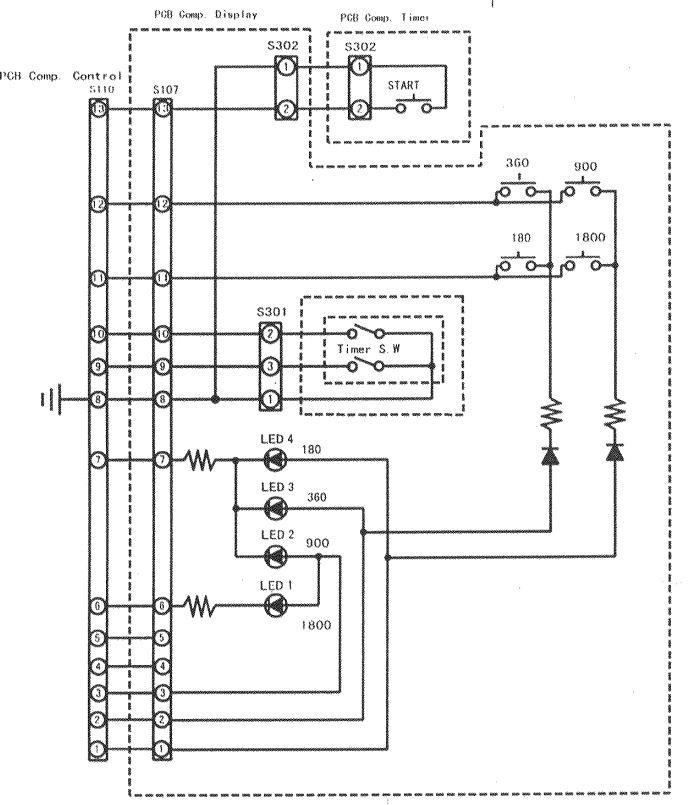


FIGURE 10

CHECKOUT PROCEDURE FOR SWITCHES

Disconnect the lead wires from the switches and check for the continuity of the switches, connecting an ohm-meter to its terminals.

SWITCHES (SEE Figure 1 on page 1)	CHECKOUT PROCEDURES	DOOR OPEN	DOOR CLOSE
PRIMARY INTERLOCK DOOR SENSING	Terminals "COM" and "NO"		
INTERLOCK MONITOR	Terminals "COM" and "NC"		

CAUTION: After checking the switches, make sure that the interlock monitor switch is properly connected according to the CIRCUIT DIAGRAM on page 3.

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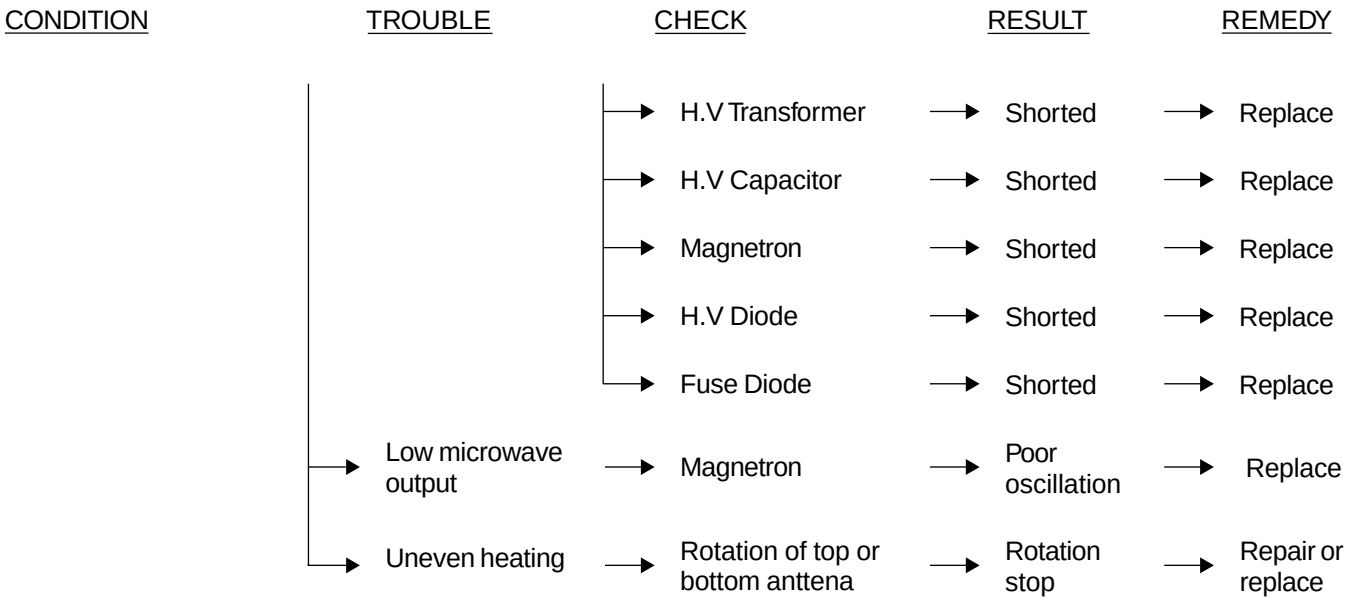
B.TROUBLESHOOTING

CONDITION	TROUBLE	CHECK	RESULT	REMEDY
Power is applied with normal voltage		Connection of S110 to S107	Poor Contact	Reconnect
Timer is set Touch Select key	No display cooking time	Power circuit board (See page 6)	Voltage incorrect	Replace
		Control circuit board (See page 6)	Voltage incorrect	Replace
	Cooking operation will not start	Primary Interlock switch (See page 7)	No continuity	Replace
		Thermal protector	No continuity	Replace
		Door sensing switch (See page 7)	No continuity	Replace
		Control circuit board (See page 6)	Voltage incorrect	Replace
	Oven dose not heat up	Control circuit board (See page 6)	Voltage incorrect	Replace
		H.V Transformer (See page 4)	Resistance incorrect	Replace
		H.V Capacitor (See page 5)	Resistance incorrect	Replace
		Magnetron (See page 4)	Resistance incorrect	Replace
		Monitor switch (See page 7)	Contact on No continuity	Replace or Adjust
	Fuse(10A) blows off immediately	Blower motor	Shorted	Replace
		Step-down Transformer	Shorted	Replace



C. ERROR INDICATION

This model has some self diagnosis functions.
Display shows "E" depending on the trouble.

DISPLAY	Trouble	Situation
E-21	Thermistor for duct of cavity top is operated by over heating of 120 °C	Buzzer will continuously beep tone. Blower motor will stop immediately. Then oven will stop heating.
E-31	Thermistor for lower magnetron or duct is shorted.	Blower motor will stop immediately. Then oven will stop heating.
E-32	Thermistor for lower magnetron or duct is disconnected or removed from connector socket.	Oven will stop heating. Blower motor will be operated.
U-10	Thermistor for Magnetron is operated by over heating of 200°C	Buzzer will continuously beep tone. Blower motor will stop immediately. Then oven will stop heating.
U-50	The purpose of this function is to prevent operation when there is no food in the oven	Open and close the door, and then touch the key before 1 minute passes

7. DISASSEMBLY INSTRUCTIONS

- OVEN MUST BE DISCONNECTED FROM ELECTRICAL OUTLET WHEN MAKING REPLACEMENTS, REPAIRS, ADJUSTMENT AND CONTINUITY CHECKS BEFORE PROCEEDING WITH ANY REPAIR WORK AFTER DISCONNECTING, WAIT AT LEAST 1 MINUTE, UNTIL THE CAPACITOR IN THE HIGHVOLTAGE AREA HAS FULLY DISCHARGED.

A. REMOVING PRIMARY INTERLOCK SWITCH

(See Figure 1 on page 1)

(1) Disconnect all lead wires from the primary interlock switch.
(2) Remove 2 screws securing the lever stopper.
(3) Remove 1 screw securing the switches. Then pull out the switches.
(4) Make necessary adjustment, and make microwave energy leakage check according to "1. ADJUSTMENT PROCEDURE FOR SWITCHES" an page 1, after it is replaced with new one, and check proper operation of it according to "CHECKOUT PROCEDURE FOR SWITCHES" on page 7.

B.REMOVING INTERLOCK MONITOR AND DOOR SENSING SWITCH

(See Figure on page 1)

(1) Disconnect all lead wires from the interlock monitor switch and door sensing switch.
(2) Remove 1 screw securing the these switches. Then pull out the switches.
(3) Make necessary adjustments or replacement of switch by the reversing step (2) and check microwave energy leakage according to "1. ADJUSTMENT PROCEDURE FOR SWITCHES" on page 1, after it is replaced with new one, and check proper operation of it according to "CHECKOUT PROCEDURE FOR SWITCHES" on page 7.

WHEN REPLACING ANY DOOR MICROSWITCH, REPLACE WITH THE SAME TYPE SWITCH SPECIFIED ON THE PARTS LIST.

C. REMOVING FUSE

Remove the 10A fuse with screwdriver.

NOTES

- When replacing the 10A fuse, be sure to use an exact repair part.
- If the 10A fuse blows immediately, check the primary interlock switch, the relay 3 and 4 (on the control circuit board) and the interlock monitor switch according to "CHECKOUT PROCEDURE FOR SWITCHES" on page 8. and make sure to check the microwave energy leakage according to "1. ADJUSTMENT PROCEDURE FOR SWITCHES" on page 1, when the primary interlock switch, the relay 3 and 4 or the interlock monitor switch is adjusted or replaced.
- If the primary interlock switch, the relay 3 and 4 or the interlock monitor switch operate properly, determine which of the followings is defective : control circuit board, blower motor, gear motor, high voltage transformer, high voltage capacitor, high voltage diode or magnetron.
- If the high voltage diode is defective replace not only the high voltage diode but also the fuse diode.

D. REMOVING DISPLAY CIRCUIT BOARD

(1) Disconnect all lead wires of the Control panel from the Control PCB and Power PCB.
(2) Remove 4 screws securing the Control panel Ass'y to the oven cavity.
(3) Push up and pull out the Control panel Ass'y.
(4) Remove 4 screws securing the Display PCB.
(5) Take out the Display PCB and push up the lever end of the plastic fastener and remove the FPC connector from the connector socket S101.

CAUTION:
When replacing new Display PCB please take big care that all 4 LED heads shoul dexacty be inserted into the square holes of control frame all at once. Never force to push any LED lead in the PCB.

E. REMOVING MAGNETRONS

(1) Remove 2 screws securing the thermal limitter .
(2) Disconnect 2 lead wires from the magnetron terminals by removing 2 connectors.
(3) Remove thermistor (lower magnetron) by pulling horizontally.
(4) Remove 4 hex nuts (upper magnetron) or 2 hex nuts (lower magnetron)securing to the waveguide.
(5) Remove lower magnetron.
(6) Take out the magnetron VERY CAREFULLY.

NOTES

- When removing the magnetron, make sure that its dome does not hit any adjacent parts, or it may be damaged.
- When replacing the magnetron, be sure to install the magnetron gasket in the correct position and be sure that the gasket is in good condition.
- After replacing the magnetron, check for microwave make sure the microwave energy leakage is below the limit of the regulation ($5mW/cm^2$).

F. CHANGING POWERSUPPLY CORD

(See exploded view on page 15)

(1) Unfasten 1 screw for earth and pull out 2 wires of power cord from terminal plate.

(2) Remove1 screw for bottom bracket of cord bushing.

(3) install the new power supply cord with reverse procedure of above (1) to (2).

WARNING:

For the changing the power supply cord, never use other than following.

Key No.	Order No.	Parts Name
4	617 208 1076	Power cord Ass'y(Germany)
5	617 196 9184	Power cord Ass'y(UK)
6	617 078 3132	Cord bush (UK)
7	617 140 1332	Cord bush (Germany)
39	617 125 3832	Bottom bracket (UK)
40	617 140 1349	Bottom bracket (Germany)

G. REMOVING CERAMIC TRAY ASS'Y

(See Fig.11)

(1) Take off the cabinet.

(2) Put (insert) a screwdriver in the 9 mm diameter hole locating at lower hinge of left side of the oven cavity. And push the tray up with the screwdriver.

(3) Open the door and take out the tray very carefully.

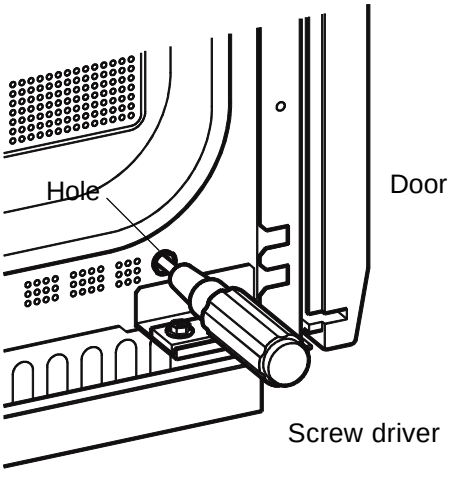


Figure 11

H.REMOVING DOOR

Remove 2 hex nuts securing the upper hinge, remove 3 hex nuts securing the lower hinge and remove1 special screwsecuring the door arm (located at the bottom of the door sash).

NOTES

- After replacing the door, be sure to check that the primary interlock switch, the door sensing switch and the interlock monitor swich operate normally. (See pages 1 and 7)
- After replacing the door, check for microwave energy leakage with a leakage detector. Microwave energy leakage must be below the limit of 5mW/c ‡u.

I.HOW TO RESET THE MEMORY OF ACCUMULATIVE COOKING TIME

1. Push the keys step by step as follows,
   Turn the Timer Knob to left until display shows"0".
   Touch START key first and also touch POWER SELLECTION key (1800W) until display changes.
   The display will show accumulative cooking time in the display window.

2. Then push the POWER SELLECTION key(1800W) during cooking time appear in the display.

3. Push the POWER SELLECTION key(1800W) for 4 seconds continuously.
   Accumulative cooking time will be cleared.

J.CAUTION FOR CUSTOMER ON OPENING AND CLOSING DOOR

When the Microwave oven is in operation, should the customer open the door slightly and close, the breaker of the house will occasionally be cut off. It is necessary to explain to the customer not to exercise such matter.

When the Door is opened slightly between 2 or 3 mm distance, primary interlock switch turn OFF, and operation stops.

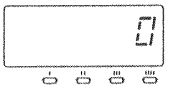
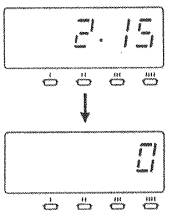
However door sensing switch will remain ON, and if door is closed, primary interlock switch activates and operation resumes immediately.

At such time microwave oven will start any time. Therefore a big In-rush currnet flows, and thus Breaker will be cut off.

CHECKING ACCUMULATIVE COOKING TIME, NUMBER OF DOOR OPERATIONS AND CONTROL OF THE BUZZER SOUND

The number of door operations. (100 times)

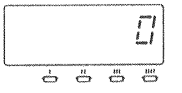
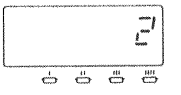
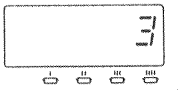
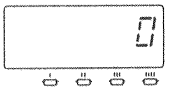
Accumulative cooking time.

	Operation	Display window
1	• Turn the TIMER KNOB to left until display shows "0".	
2	• Touch START key first and also touch POWER SELECTION key until display changes.	 • The total cooking time appears in the display for 5 seconds. • "0" appears in the display.

The volume of the buzzer.

when cooking is interrupted by door opening.

0 . . . Indication of remaining cooking time
1 . . . To cancel remaining cooking time

	Operation	Display window
1	• Turn the TIMER KNOB to left until display shows "0".	
2	• Touch START key first and also touch POWER SELECTION key 170W until display changes.	 • The display indicates number of current setting. 0·····none 1·····quiet 2·····medium 3·····loud
3	• Turn the TIMER KNOB to change setting. • When you don't change setting, skip steps 3.	
4	• Touch START key.	 • "0" appears in the display. • Volume of buzzer is set.

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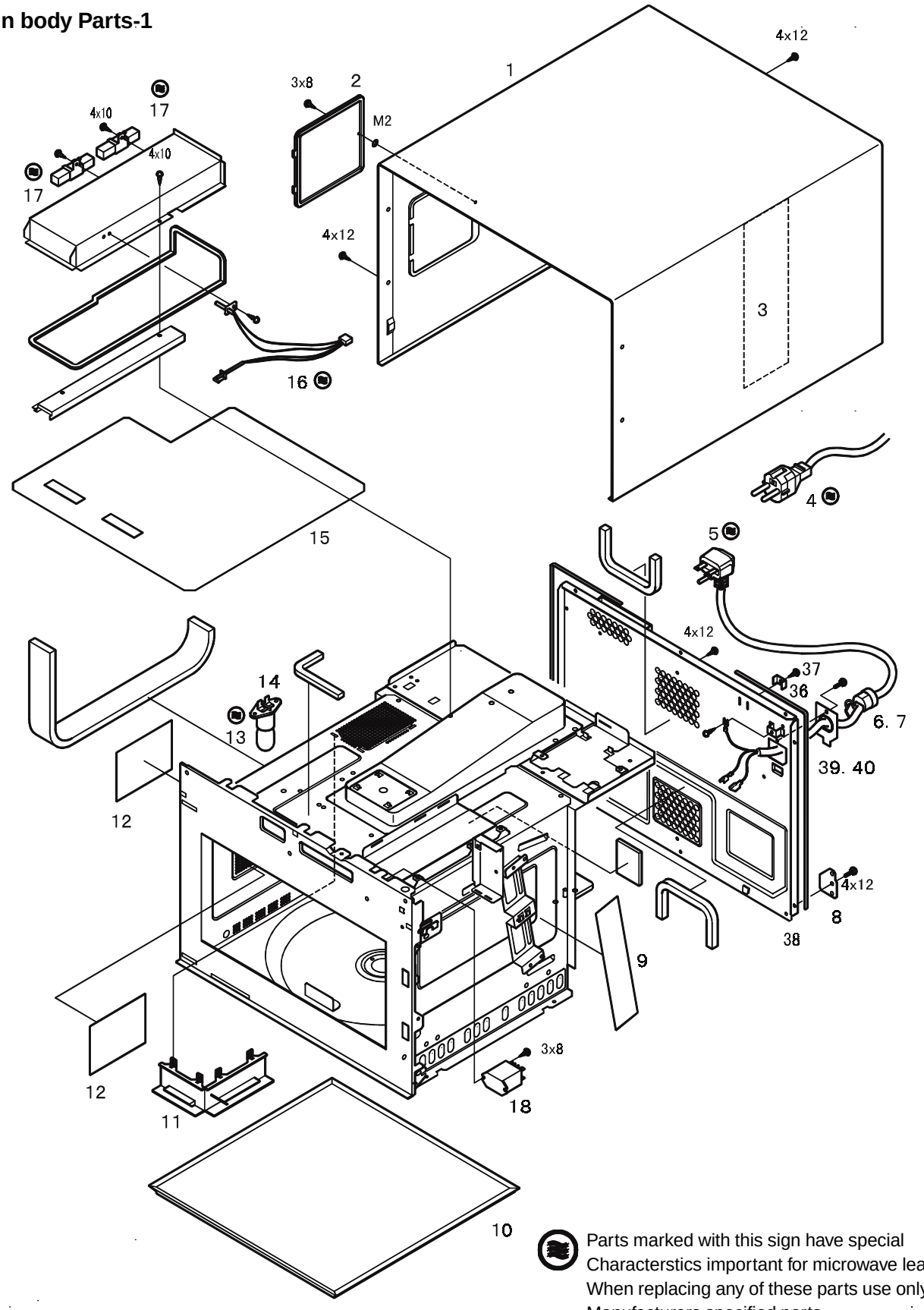
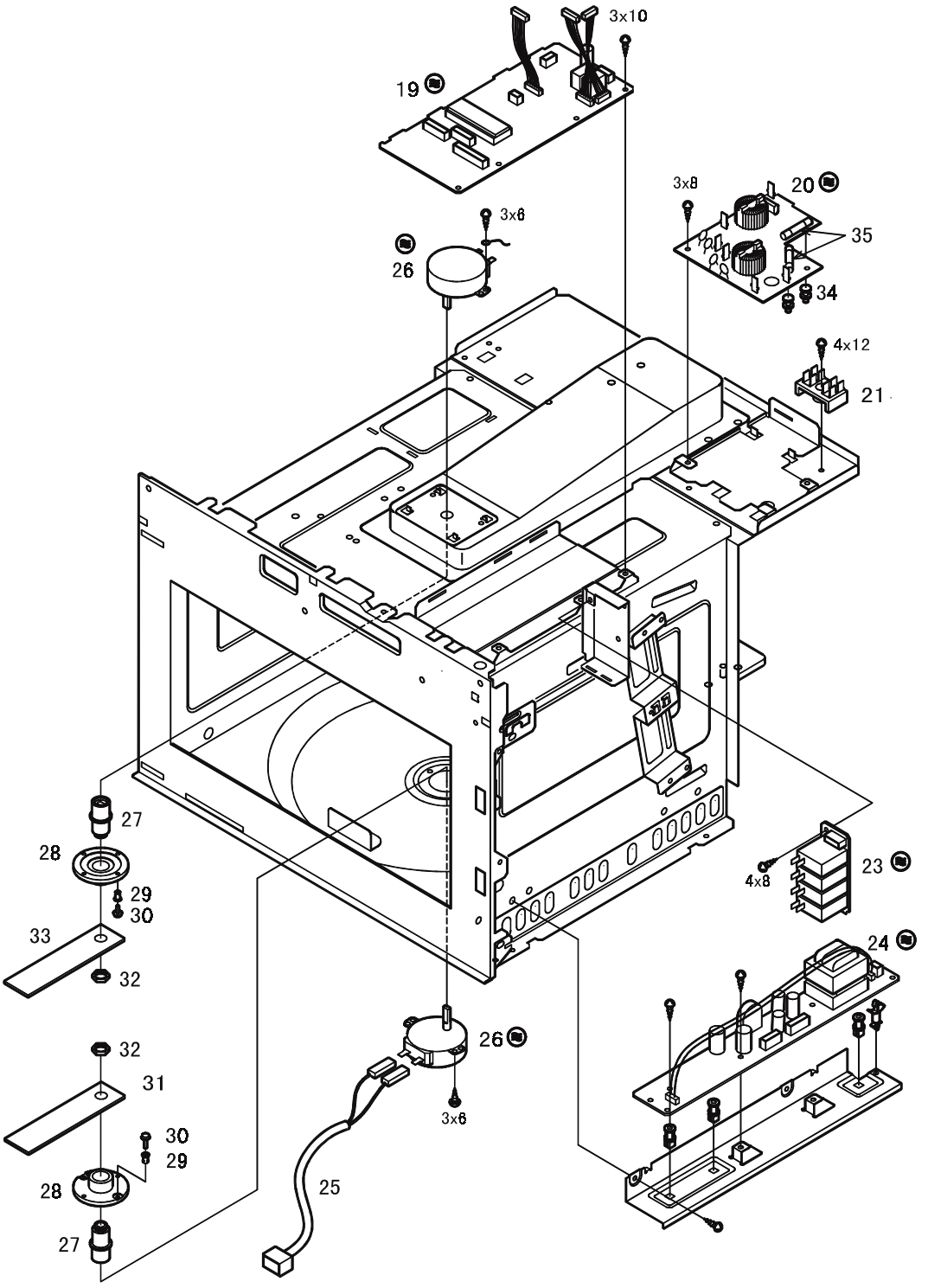
8. EXPLODED VIEW AND PARTS LIST

Main body Parts-1



Parts marked with this sign have special Characterstics important for microwave leakage. When replacing any of these parts use only Manufacturers specified parts.



Parts marked with this sign are supplied with high voltage exceeding 250V

Parts marked with this sign have special Characterstics important for microwave leakage. When replacing any of these parts use only Manufacturers specified parts.

Main body parts-1

KEY NO.	SERVICE PART NO.	DESCRIPTION		Q TY.
1	617-120-2854	CABINET	SUS430 TO.6	1
2	617-055-9584	FRAME PLATE ASS'Y		1
3	617-123-9942	INSU. SHEET	TO.4	1
4	617-208-1472	CORD ASS'Y GERMANY	KABELMETAL H07RN-F	1
5	617-196-9184	CORD ASS'Y UK		1
6	617-078-3132	CORD BUSH UK		1
7	617-140-1332	CORD BUSH GERMANY	SR-31-2	1
8	617-179-6087	FRAME B.C.T	LGCC T1.2	1
9	617-202-7845	INSU. SHEET	TO.4	1
10	617-120-4230	SHELF ASS'Y		1
11	617-120-4148	STIRRER GUIDE	P.P	1
12	617-120-3387	LIGHT OPENING COVER	TO.1	2
13	617-149-3009	LAMP	240/250V 25W E-14	1
14	617-077-6356	LAMP SOCKET	PA0 2A250V T150	1
15	617-120-3370	CAVITY COVER	TO.8	1
16	617-202-5261	THERMISTOR ASS'Y		1
17	402-061-1505	CERAMIC RES 25 J 20W	MTST ERF-20HMJ250	2
18	617-131-3789	RELAY	LY2F-T2-T115	1
19	617-214-1633	P.C.B COMP. CONTROL		1
20	617-206-7506	P.C.B COMP. NOISE FILTER		1
21	617-192-2110	TERMINAL PLATE	CB-70921	1
23	617-202-0150	P.C.B COMP. RELAY		1
24	617-214-1619	P.C.B COMP. POWER		1
25	617-130-4879	HARNESS		1
26	617-209-9422	GEAR MOTOR	M2CJ29AA49-H UL	2
27	617-120-3325	ANTENNA SHAFT	AL	2
28	617-212-8535	ANTENNA BEARING	PFA	2
30	617-121-9265	CLIP		4
31	617-217-5911	ANTENNA LOWER	AL	1
32	617-120-3349	SPECIAL NUT	AL	2
33	617-120-3332	ANTENNA UPPER	AL	1
34	617-207-6836	CLIP	MPS-04-0	2
35	423-018-7609	FUSE 250V 10A	250V-TLC 10A	2
36	617-195-1295	SPECIAL WASHER		1
37	412-006-9800	SCR TRS 4X12		1
38	617-214-4801	FRAME REAR PLATE ASS'Y		1
39	617-125-3832	BOTTOM BRACKET UK		1
40	617-140-1349	BOTTOM BRACKET GERMANY	LGD T1.2 60160	1

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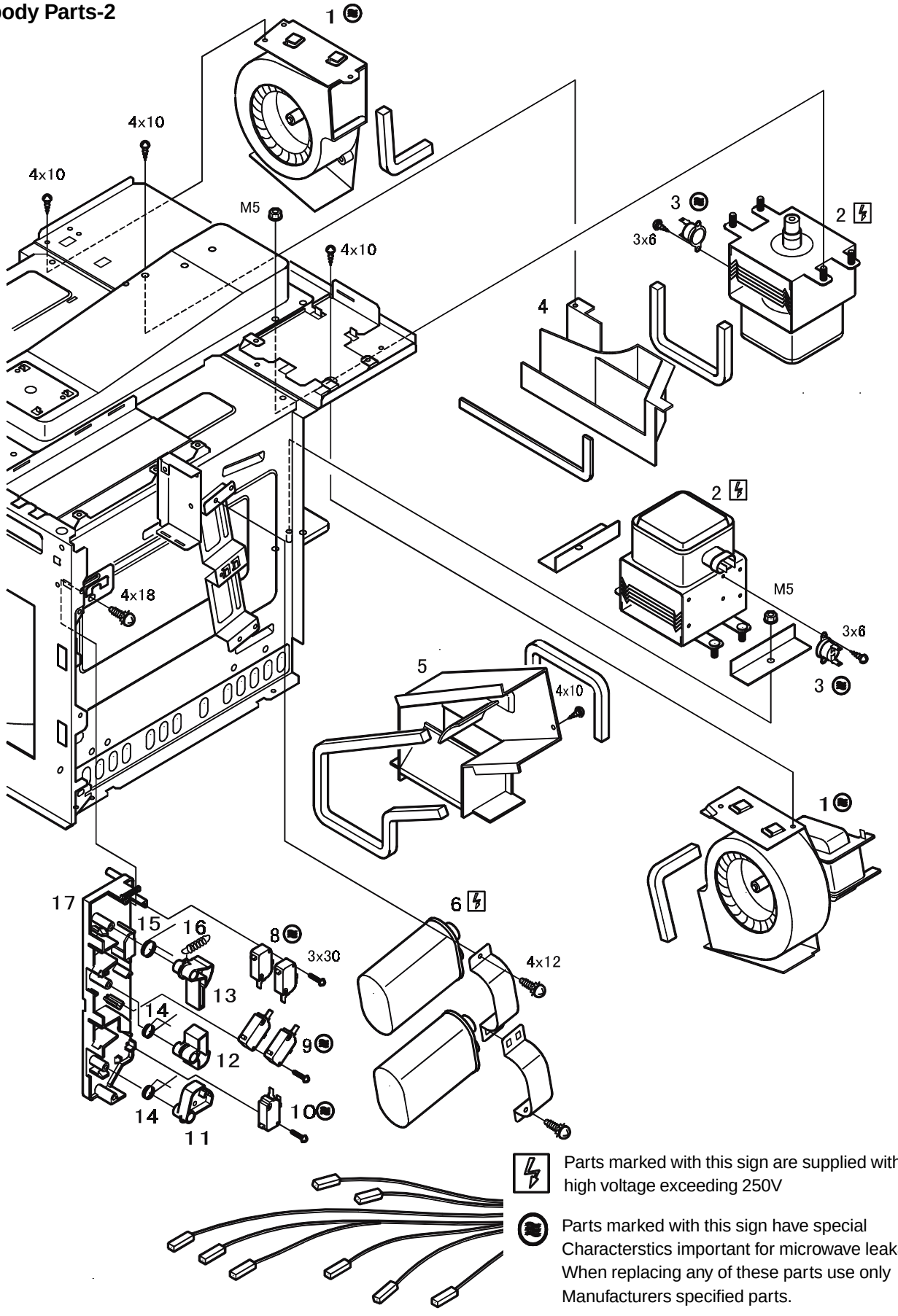
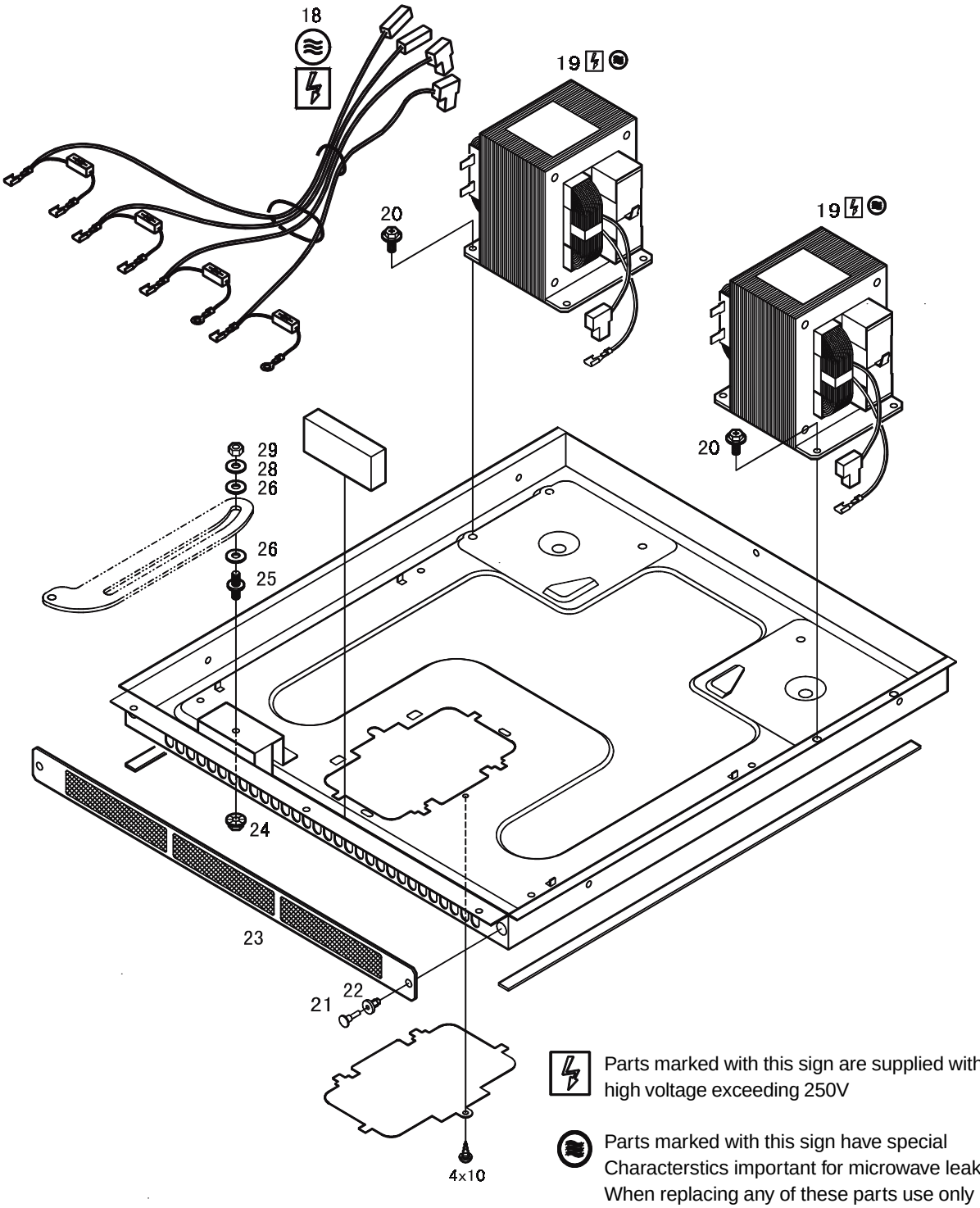
Main body Parts-2



Parts marked with this sign are supplied with high voltage exceeding 250V

Parts marked with this sign have special Characterstics important for microwave leakage. When replacing any of these parts use only Manufacturers specified parts.



Parts marked with this sign are supplied with high voltage exceeding 250V

Parts marked with this sign have special Characterstics important for microwave leakage. When replacing any of these parts use only Manufacturers specified parts.

Main body parts - 2

KEY NO.	SERVICE PART NO.	DESCRIPTION		Q TY.
1	617-196-9245	BLOWER COMP.	BM-C1800IHK	2
2	415-002-6408	MAGNETRON 2M254(M)		2
3	617-214-7628	THERMOSTAT 150C	NGT 03EN 150C	2
4	617-120-3431	DUCT MAG. UPPER	8400R	1
5	617-120-3448	DUCT MAG. LOWER	8400R	1
6	617-206-8220	CAPACITOR 1.0MFD	1.0	2
7	617-181-2206	FERRITE	HF70RU-16-28-9	4
8	617-004-5230	MICRO SWITCH MONITOR	V-5220D-502	2
9	617-160-0438	MICRO SWITCH DOOR LATCH	V-5930D-013	2
10	617-004-3724	MICRO SWITCH DOOR SENSING	V-5330DK	1
11	617-178-1182	LATCH LEVER		1
12	617-178-1175	LATCH LEVER		1
13	617-178-1168	LATCH LEVER		1
14	617-178-1205	SPRING	SUS304-WPB D0.65	2
15	617-178-1212	SPRING	SUS304-WPB D0.65	1
16	617-187-2217	SPRING	SUS304-WPB D0.7	1
17	617-178-1151	LEVER STOPPER	6-6 G-15	1
18	617-214-6553	HARNESS WITH H.V DIODE		2
19	617-214-4474	HV TRANSFORMER	N5T-C1850	2
20	617-080-4196	SPECIAL SCREW		6
21	617-122-8908	CLIP		2
22	617-122-6379	GROMET		2
23	617-120-3394	FILTER ASS'Y		1
24	411-004-3506	NUT HEX+FLG W/SRT 5		1
25	617-080-3830	SPECIAL SCREW	SUS-430 D6	1
26	617-080-5179	SPECIAL WASHER	T0.5XD7.3XD13	2
28	617-080-5186	SPECIAL WASHER	SPG T1.0XD5XD13	1
29	411-055-0202	NUT HEX 5		1

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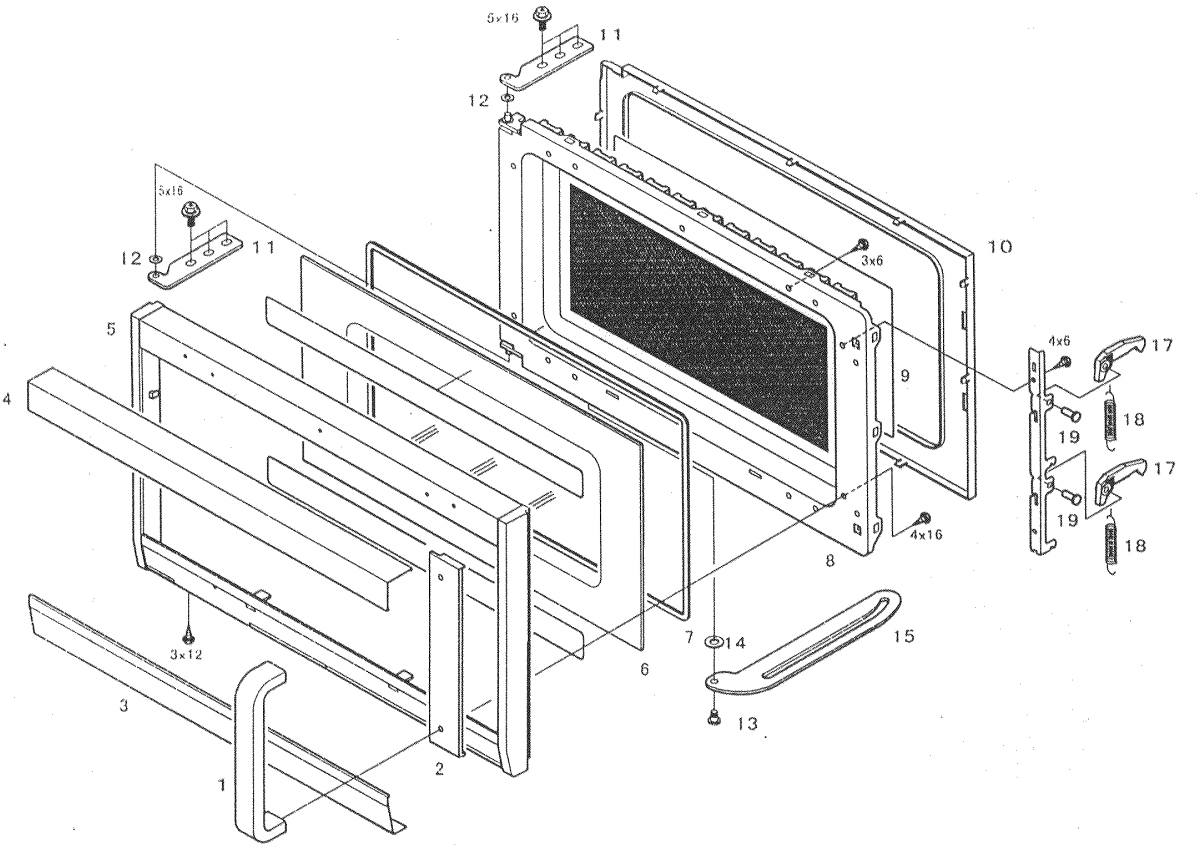
Door parts



KEY NO.	SERVICE PART NO.	DESCRIPTION	Q TY.
1	617-201-9697	DOOR HANDLE	1
2	617-201-9680	DOOR BASE	1
3	617-120-3110	ORNAMENT PLATE	1
4	617-120-3127	ORNAMENT PLATE	1
5	617-120-3073	DOOR COVER	1
6	617-130-4862	DOOR PANEL	1
7	617-121-5489	PACKING	2
8	617-178-0734	DOOR ASS'Y	1
9	617-178-1441	DOOR PANEL	1
10	617-178-0840	CHOKE DIELECTRIC	1
11	617-120-3028	HINGE	2
12	411-089-2500	WASHER F 5X10X0.8	2
13	617-080-3847	SPECIAL SCREW	1
15	617-068-3623	DOOR ARM	1
17	617-068-1087	DOOR LATCH	2
18	617-140-5392	SPRING	2
19	617-068-3579	ARM PIN	2

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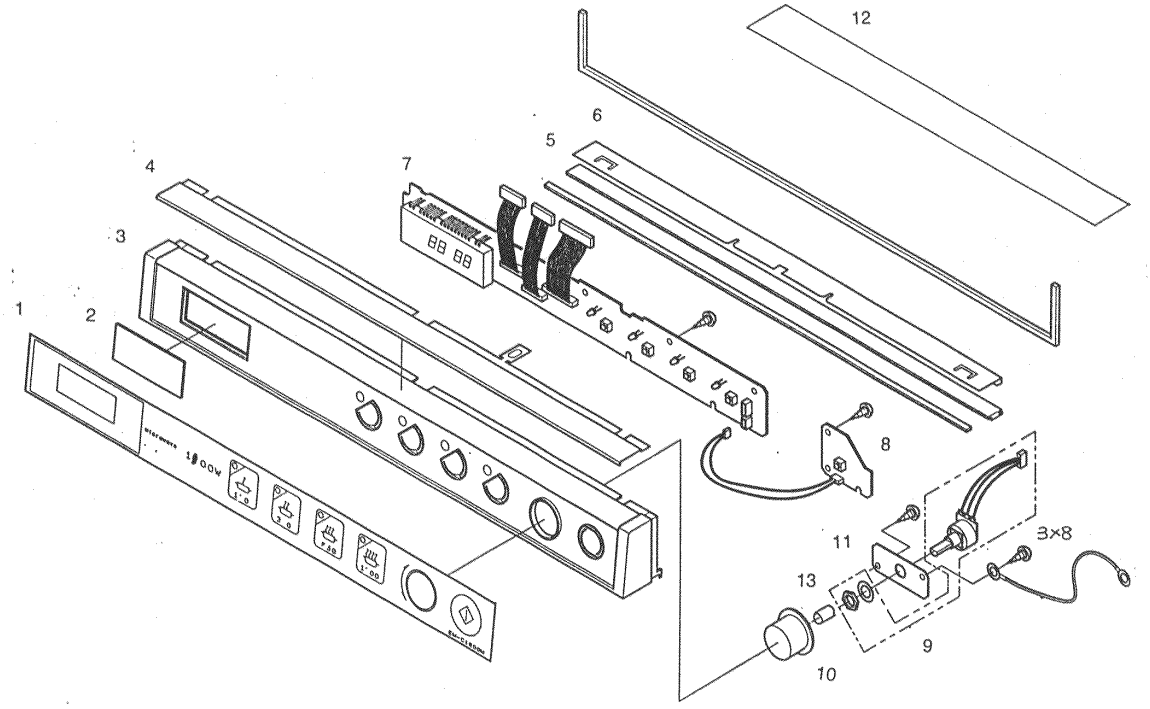
Control panel parts



Control panel parts

KEY NO.	SERVICE PART NO.	DESCRIPTION		Q TY.
1	617-193-6100	CONTROL PLATE		1
2	617-206-0873	CONTROL PLATE WINDOW	T2.0	1
3	617-193-6094	CONTROL BASE	ABS	1
4	617-130-9348	ORNAMENT ASS'Y		1
5	617-073-7616	CAVITY PACKING		1
6	617-073-9672	PACKING COVER	SECC T0.6	1
7	617-211-2671	P.C.B COMP. DISPLAY		1
8	617-192-5920	P.C.B COMP. TIMER		1
9	617-206-9203	SWITCH ASS'Y TIMER		1
10	617-193-6315	KNOB BODY	ABS	1
11	617-213-8596	PARTS BASE	LGCC T1.0	1
12	617-208-3377	CONTROL COVER	T0.1	1
13	617-213-8619	SPACER		1
14	617-214-6676	OPERATING INSTRUCTIONS		1

Packing parts (Items Not illustrated)

KEY NO.	SERVICE PART NO.	DESCRIPTION	Q TY.
1	617-214-6577	CORRUGATE BOX COMP.	1
2	617-195-1035	CORRUGATE BASE COMP.	1
3	617-195-4296	BODY CUSHION BED UPPER	1
4	617-120-3776	BODY CUSHION BED LOWER	1
5	617-195-1066	BODY CUSHION BED LOWER	1

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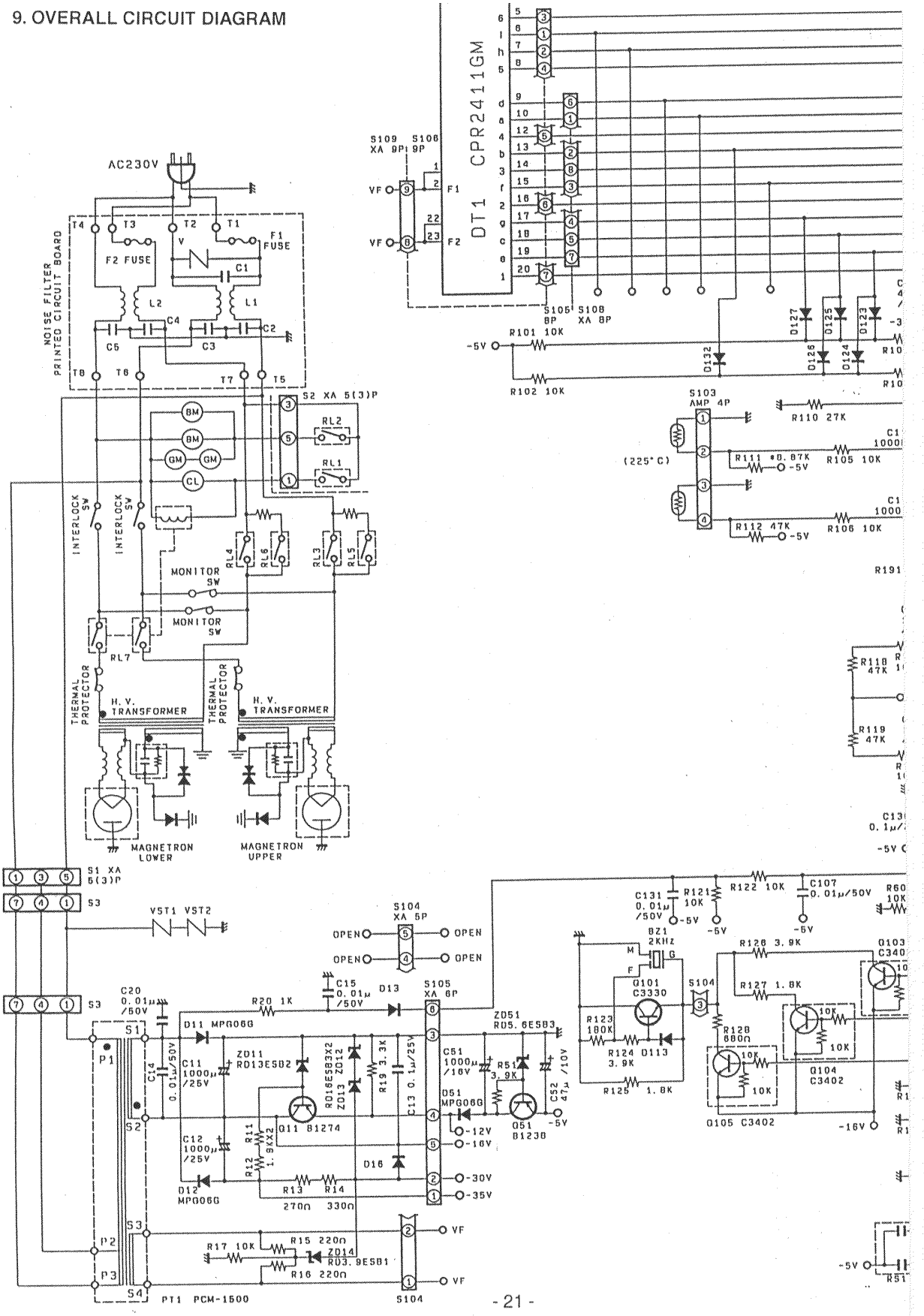
9. OVERALL CIRCUIT DIAGRAM



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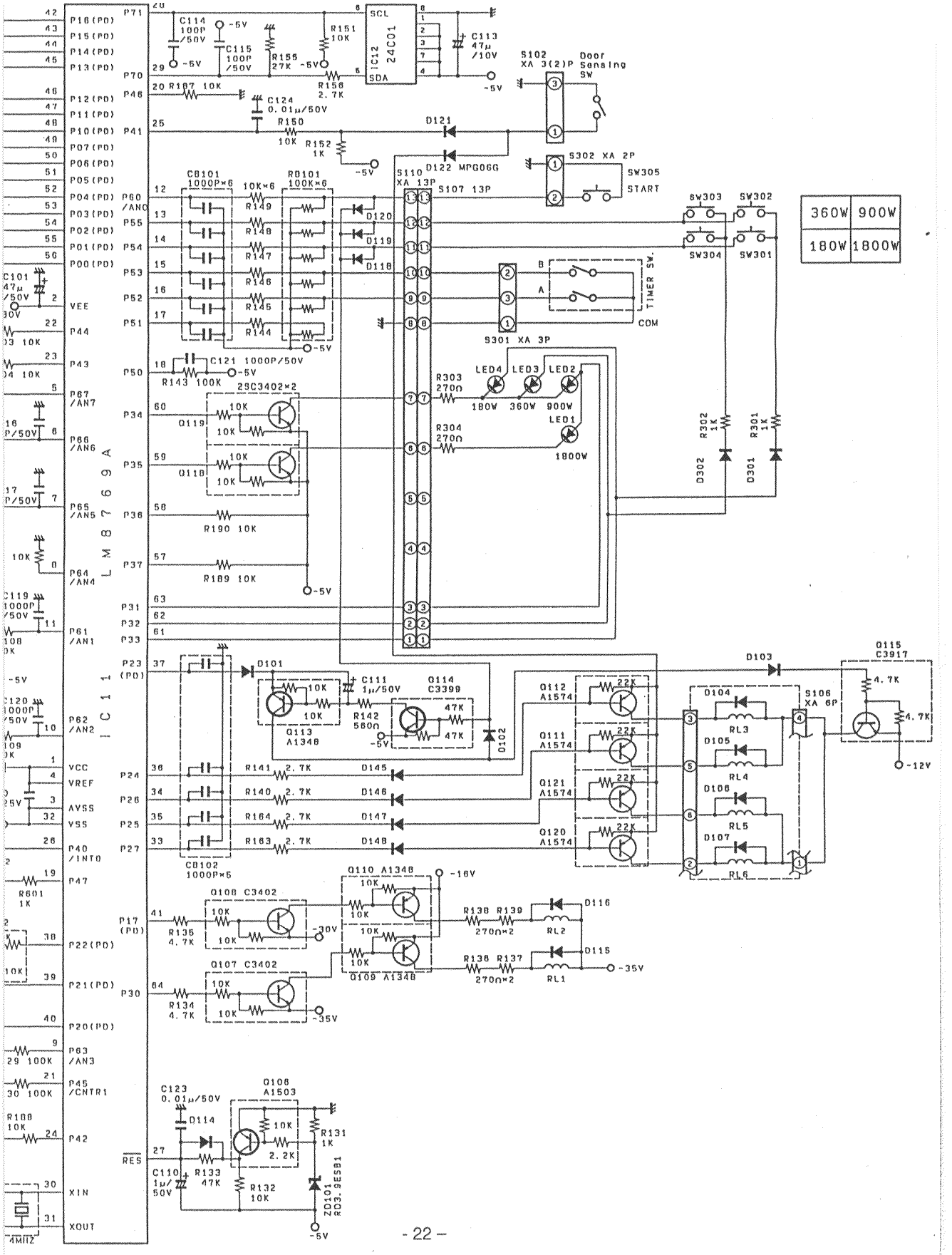

360W	900W
180W	1800W

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CONTROL CIRCUIT BOARD
(P/N 611 214 1633)

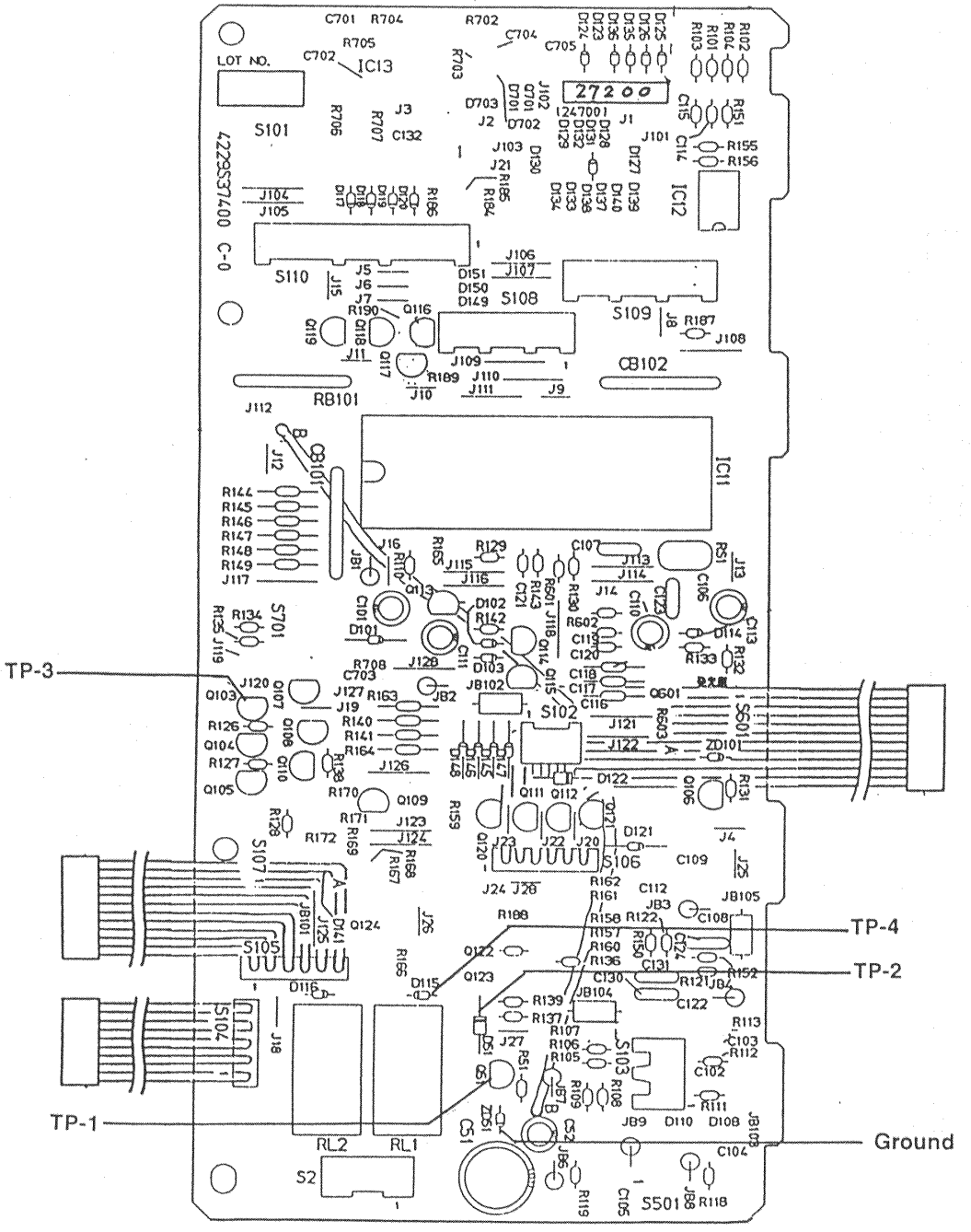

Figure 12

SANYO

SANYO Electric Co., Ltd.
Osaka, Japan

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